Analysis and Prospect of the Hot Spots of Ideological and Political Research on Chinese Middle School Curriculum in the Recent 20 Years --Knowledge Map Analysis Based on CiteSpace

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Abstract. With the increasing popularity of Curriculum Ideological and Political construction, the number of publications in this field has surged. Using CiteSpace software to analyze the research hotspots and cutting-edge trends of middle school curriculum ideological and political construction is of great significance for promoting its development. The research results show that the research in the field of ideological and political construction, and core competencies; the entire research has gone through three stages: preliminary exploration, initial development, and in-depth research; subsequent research can focus on four aspects: combining multiple perspectives, focusing on overall integration, improving the evaluation system, and enhancing teacher literacy, to help gradually improve the ideological and political construction of middle school curriculum in China.

Keywords: Curriculum Ideological and Political; Establish morality and cultivate people; Knowledge map; CiteSpace.

1 Introduction

Since 2004, documents on further strengthening and improving the ideological and moral development of minors and the ideological and political education of college students have been issued, and in 2019, General Secretary Xi Jinping delivered an important speech at a symposium for teachers of ideological and political theory courses in schools, pointing out that "we should adhere to the establishment of moral education as the central link, and carry out ideological and political work throughout the whole process of education and teaching "^[1]. In 2020, the video conference of comprehensively promoting the construction of higher education courses of Ideology and Politics was held, Minister of Education Chen Baosheng pointed out that the construction of Curriculum Ideology and Politics in colleges and universities should be "deployed and continuously promoted in the work of Ideology and Politics education, discipline and major construction, teacher training, teaching evaluation, etc."^[2], and more and more

researchers have devoted their attention to the field of Curriculum Ideology and Politics construction and have made fruitful research results. On December 2 of the same year, the National Conference on Moral Education in Primary and Secondary Schools was held in Shanghai, and Vice Minister of Education Zheng Fuzhi emphasized: "The combination of the Civic Science curriculum and other courses is important to complement each other. It is necessary to continuously strengthen the reform and innovation of the Ideology and Politics courses in the new era, further establish the concept of great moral education, strengthen the whole subject education, and give full play to the advantages of each discipline"^[3].

In this context, in order to better sort out the construction of secondary school Curriculum Ideology and Politics, this paper adopts the scientific knowledge mapping software CiteSpace to conduct visual analysis, analyze the secondary school Curriculum Ideology and Politics research posture, research lineage, and research hotspots in different periods, and provide an outlook on the research direction, to provide help for the subsequent research.

2 Research design

2.1 Sample source

This paper focuses on the research work of secondary school Curriculum Ideology and Politics in the past twenty years, and uses the journals included in the China Knowledge Network database as the source journals for the paper search, and the search topics are "Curriculum Ideology and Politics" and "secondary school", "junior high school", "primary and secondary school", "high school", "primary and secondary school", and the search timespan was from 2002 to 2023. In the precise positioning of keywords, 157 CSSCI and core literature were retrieved, but the overall sample was small, so the sample was expanded to all journals, and irrelevant literature such as books, newspapers, and conference reviews were deleted, and finally, 544 valid research documents were selected.

2.2 Research methodology

In this paper, CiteSpace software is used to visualize and analyze the retrieved valid literature. CiteSpace is a citation visualization and analysis software based on scientometrics, data integration, and information clustering, through which the scientific knowledge map of relevant research fields can be mapped and its research hotspots and development trends can be observed efficiently. Refworks format files containing literature data were imported in CiteSpace 6.2.R4 for data format conversion, the time module (TimeSlice) range was selected from 2002 to 2023, the minimum time slice (YearsPer Slice) was set to 1 year, the Pathfinder method was selected for network cropping, the linkage strength The calculation chose the cosine algorithm, and the analysis mainly included research institution co-occurrence mapping, keyword clustering, etc.

3 Research situation and analysis

3.1 Research time trend

The annual publication volume can measure the research hotspots and overall trends of secondary school Curriculum Ideology and Politics construction. Figure 1 shows the change of

research literature on secondary school Curriculum Ideology and Politics in CNKI with timespan from 2002 to 2023. As can be seen from Figure 1, with 2019 as the turning point, the annual volume of publications increases slowly before then, and thereafter the annual volume of publications shows a significant increasing trend. Scholars have paid considerable attention to the research on the construction of secondary school Curriculum Ideology and Politics in the past four years, and there is still a rich research space in this field in the future.

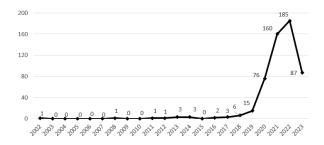


Fig. 1. Trend of annual posting volume of Curriculum Ideology and Politics

3.2 Research spatial situation

In CiteSpace, check Institution in Node types to get the co-occurrence map of secondary school Curriculum Ideology and Politics research institutions, see Figure 2. Secondary school Curriculum Ideology and Politics is currently receiving attention from many research institutions, most of which are teacher training colleges and universities. This is due to the fact that local cultural elements have their own characteristics and scholars actively combine local characteristics to conduct Curriculum Ideology and Politics research, but a more stable and developable cross-regional cooperative research organization has not yet been formed among institutions.

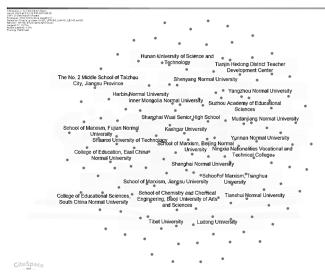


Fig. 2. Co-presence mapping of research institutions

4 Research lineage and hot spot analysis

Keywords are the condensation and high summary of the research subject of an article, and the organization of keywords in the literature of the field can get the research focus and evolution of the field. Keyword clustering analysis is based on the co-occurrence of keywords, using cluster statistics to simplify the network relationship between keywords into a relatively small number of clusters, which can be used to study the knowledge development trend, research pulse, and research hotspots of a research field in combination with time mapping.

4.1 Keyword co-occurrence mapping

Set Node types as Keyword, merge similar keywords in the project file citespace.alias, and get the keyword co-occurrence network, see Figure 3, the number of nodes is 278, that is, 278 keywords, the keyword size is positively correlated with its research hotness, the thicker the keywords are connected with each other the stronger the co-occurrence relationship, the greater the density the closer the connection.

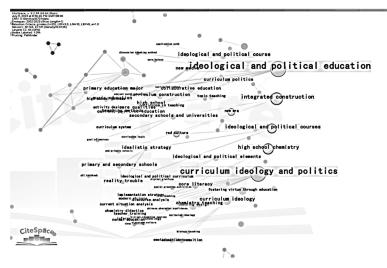


Fig. 3. Keyword co-occurrence mapping

According to the high-frequency word boundary formula proposed by Joseph C. Donohue:

$$T = \frac{-1 + \sqrt{1 + 8I}}{2} \tag{1}$$

Where I represents the number of keywords, when the number of keyword occurrences is greater than the high-frequency keyword threshold T, it can be regarded as a high-frequency keyword^[4]. The number of nodes 278 is substituted, and the calculated T value is 23.085, that is, when the keyword frequency is higher than 23.085, it is a high-frequency keyword, which can be regarded as a research hotspot, and the effective frequency of high-frequency keywords and their intermediary centrality statistics are shown in Table 1, except for "Curriculum Ideology and

Politics" and "secondary school The frequency of "moral education" is the highest, except for the keywords of "Curriculum Ideology and Politics" and "secondary school".

 Table 1. Frequency of high-frequency keywords and their mediated centrality statistics of Curriculum Ideology and Politics

Keywords	Frequency	Intermediary Centrality
Curriculum Ideology and Politics	249	0.97
Ideology and Politics Course	84	0.42
University, School, and College	19	0.10
Secondary Schools	35	0.30
Establishing moral values and educating people	32	0.18
Civic Education	28	0.10

Then, the keywords were clustered and analyzed, and the results of the "LLR" algorithm were 10 categories, i.e. see Figure 4.

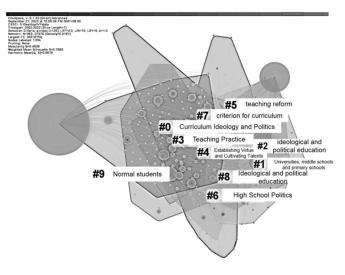


Fig. 4. Keyword clustering

The keyword clustering "Summary Table|Whitelists", is organized to get Table 2, where Size indicates the number of cluster members, greater than 10 indicates a good clustering effect; Silhouette represents the average profile value of clusters, referring to the tightness between members within the cluster, greater than 0.5 indicates reasonable and greater than 0.7 indicates convincing, as shown in Table 2.

Table 2. Cooccurrence clustering of keywords in Curriculum Ideology and Politics research

Size	Silhouette	Top Terms (LLR)	
62	0.588	Curriculum Ideology and Politics; High School Math; Ideology and Politics;	
		Middle School Geography; University and Elementary Schools	

49	0.699	Curriculum Ideology and Politics; university, school and college; Ideology and Politics; integration; moral education
47	0.814	Civic Education; Curriculum Ideology and Politics; Ideology and Politics Teachers; Primary and Secondary Schools; Ideology and Politics Teachers
43	0.805	Teaching practice; teaching; core literacy; high school geography; teaching strategies
33	0.771	Establishing moral education; implementation strategies; secondary school language; English language teaching; reading teaching
25	0.791	Teaching reform; high school; middle school; high school students; innovative practice
25	0.87	High School Politics; New Curriculum; Secondary School Ideology and Politics; School-based Curriculum; High School English
13	0.947	Course standards; course objectives; educational objectives; syllabus; deviations

These eight knowledge clusters represent the research hotspots of secondary school Curriculum Ideology and Politics in China. By analyzing and exploring Fig. 4 and Table 2, the content of secondary school Curriculum Ideology and Politics construction research hotspots can be condensed into the following four aspects:

1. Construction of the goal of establishing moral education

The concept of education is the organic combination of imparting knowledge, developing ability, and value leadership^[5], General Secretary Xi Jinping clearly pointed out in the report of the 19th National Congress: "To fully implement the Party's education policy, the implementation of the fundamental task of moral education, the development of quality education, to promote educational equity, to cultivate a comprehensive development of moral, intellectual, physical and aesthetic socialist builders and successors. "^[6]Under the guidance of the direction of establishing moral education, the elements of Ideology and Politics Science are integrated into different disciplines, with each discipline centered on cultivating core literacy, using the discipline's strengths to differentiate teaching objectives, such as mathematics, physics, and other science disciplines to cultivate students' spirit of exploration and exercise logical thinking; language, English and other art disciplines are more capable of enhancing cultural character and cross-cultural communication awareness; art, music, and other art discipline slive to advert discipline always revolves around cultivating students' patriotism, stimulating their scientific spirit, and establishing a correct outlook on life and values.

2. Interdisciplinary Ideology and Politics Construction

Disciplinary Ideology and Politics refers to the discipline construction process of integrating Ideology and Politics education into scientific research work and academic norms, and cultivating a new man of the times with both professionalism and family sentiment, focusing on the role of discipline education while tapping the ideological and political theoretical knowledge in professional courses. From the cluster analysis, the construction of disciplinary Ideology and Politics takes the knowledge content as the carrier for teaching design, such as high school mathematics expresses the true reflection and investigation of the objective world; high school English takes language communication as the grasp to promote cultural understanding and value interchange; high school biology guides students to explore the natural ecology to implement

life view teaching. Curriculum Ideology and Politics is being integrated into multiple disciplines, and teachers' grasp of knowledge and Ideology and Politics elements is being strengthened, as seen in the multi-perspective and diversified research patterns that scholars have now formed.

3. Teaching reform practice construction

Curriculum Ideology and Politics opens up new directions for the increasing educational needs, education as a means of teaching reform, and core literacy as a goal of teaching reform, putting forward higher requirements for teachers' professional competence and Ideology and Politics literacy, thus promoting reform in teaching design and methods. In secondary school physics, Ma Rubao explores the teaching path of teaching objectives containing thinking political objectives and thinking political elements casting thinking political literacy, introduces the life stories of Chinese scientists Qian Sanqiang, He Zehui, and Deng Jiaxian, and infiltrates the spirit of national self-improvement and the ideal belief of scientific exploration into the classroom with inquiry-based teaching^[7]; in secondary school IT, Guo Chunmei and others integrate the artisan spirit of Lu Ban and the self-restraint of Confucius into the teaching contents, and stimulate the students' initiative and innovation with guided discovery teaching.^[8] The teaching reform practice can help the course Ideology and Politics move toward the unification of professionalism and Ideology and Politics values, thus prompting students to get comprehensive improvement in knowledge structure, ability level, and values, so as to achieve the purpose of course Ideology and Politics construction.

4.2 Keyword timeline chart

To make the analysis results more accurate, the operation mode in CiteSpace software was selected as Thresholds, and the stage thresholds C (minimum number of citations), CC (total number of citations), and CV (total number of citations after normalization) were set as (2, 2, 1) (2, 2, 1) (1, 1, 1) to generate Timeline View keyword timeline plots^[9], see Figure 5, it can be seen that the development history of research hotspots in secondary school Curriculum Ideology and Politics and construction can be divided into three stages according to their density distribution.

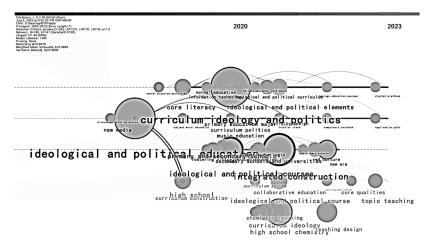


Fig. 5. Keyword Timeline Chart

The first stage is the initial exploration stage (2002-2016), with high-frequency keywords including law curriculum, new curriculum reform, teaching mode, ideological and political curriculum, ideological and political education, etc. Starting from 2002, the central government issued documents on further strengthening and improving the ideological and moral construction of minors and the ideological and political education of college students. In December 2016, General Secretary Xi Jinping attended the National Conference on Ideological and Political Work in Colleges and Universities, the official document for the implementation of the Curriculum Ideology and Politics reform has not been issued, scholars mainly focus on ideological and political courses, covering areas such as scientific literacy, improving resources, teaching reform, teacher growth, and strategy enhancement.

The second stage is the medium-term development stage (2017-2018), with high-frequency keywords such as Curriculum Ideology and Politics, disciplinary moral education, curriculum standards, implementation path, and cultivation of people. With the official release of the general framework of "Core Literacy for Student Development in China", the cultivation of core literacy also stepped into the development stage as a research hotspot. 2017, the "Implementation Outline of the Quality Improvement Project of Ideological and Political Work in Colleges and Universities" included the concept of Curriculum Ideology and Politics into the document of the Ministry of Education for the first time, and scholars responded to the call and began to vigorously research the teaching reform of Curriculum Ideology and Politics and promote it nationwide, and the number of articles issued increased twice as much as before The number of articles published increased twofold. At this stage, the research field of secondary school Curriculum Ideology and Politics gradually broadened, and scholars focused more on the effectiveness of curriculum implementation, and gradually reformed the Ideology and Politics curriculum on the basis of investigation, developed curriculum resources, focused on the teaching organization or curriculum reform in Ideology and Politics curriculum, such as the optimization of classroom language and the improvement of teaching strategies, and gradually explored the path of Curriculum Ideology and Politics teaching reform in English, physics and other courses.

The third stage is the in-depth research stage (2019-present), with high-frequency keywords such as teaching innovation, teaching strategies, team building, practical inquiry, social responsibility, professionalism, and overall education. General Secretary Xi Jinping reemphasized at the symposium for teachers of ideological and political theory courses in schools held in March 2019 that "we should adhere to the unity of explicit and implicit education, tap the ideological and political education resources embedded in other curricula and teaching methods, and realize whole-person, all-round nurturing"^[10], and in the same year, the General Office of the CPC Central Committee and the General Office of the State Council issued "Several Opinions on Deepening the Reform and Innovation of Ideological and Political Theory Courses in Schools in the New Era" (hereinafter referred to as "Opinions"), which put forward the work requirement of "promoting the overall Curriculum Ideology and Politics in colleges and universities and moral education in primary and secondary schools" and put forward the "Curriculum Ideology and Politics" and "moral education in disciplines". This phase saw a surge in the number of articles issued, and research hotspots gradually innovated and covered various disciplines, teaching processes, and stages of cognitive development, and in this context a large number of research results on the design of Curriculum Ideology and Politics teaching and curriculum reform in different disciplines emerged, expanding the dimensions of Curriculum

Ideology and Politics to include connotation concepts, value significance, and other aspects, and research areas The research areas involve various perspectives such as teaching connotation, integration path, five education together, dilemma study, educational paradigm, and discipline-specific teaching design.

5 Conclusions

According to the above analysis, the construction of secondary school Curriculum Ideology and Politics is a current research hotspot in the field of educational research, and scholars have conducted multi-dimensional discussions and explorations and obtained unique and insightful research results, laying the foundation for subsequent research, but there is still room for further depth in creating a proven secondary school Curriculum Ideology and Politics framework.

5.1 Combining multiple perspectives and improving the top-level design of Curriculum Ideology and Politics and political reform

In response to the important instruction of "unifying explicit and implicit education" in the Opinions, the research pattern of Curriculum Ideology and Politics is now being formed in terms of disciplines, regions, and teaching modes. From the perspective of explicit education, the development of Curriculum Ideology and Politics requires the establishment of disciplinary Curriculum Ideology and Politics clusters, the implementation of various Curriculum Ideology and Politics teaching reforms, and the strengthening of cooperation among research forces. In terms of teaching objectives, it is necessary to set teaching objectives from different levels and backgrounds, according to the characteristics of the knowledge content of each discipline and the cognitive ability of each school section; in terms of teaching modes, science subjects should strengthen contextualized teaching and learning, while arts subjects should make good use of guided discovery teaching. From the perspective of implicit education, it is necessary to integrate the objectives of Ideology and Politics into the teaching objectives, to permeate the Ideology and Politics elements into the teaching links so that students can get cognitive development in learning, and to make the multiple Ideology and Politics elements conveyed by each discipline subconsciously enhance students' core literacy. Researchers need to gather research power, from between regions to between disciplines, to gather dispersed research individuals into a close research community, to promote communication and synergistic development between researchers of different disciplines, different stages, and different directions of teaching, to build a top-level design with constructive significance for the reform of secondary school Curriculum Ideology and Politics teaching, and to integrate it organically into practical innovation.

5.2 Pay attention to the overall articulation and strengthen the integration of Ideology and Politics in universities and schools

The concept of the integration of the construction of the Ideology and Politics in universities and schools has been proposed since 2019, before that the construction of Ideology and Politics was more rooted in universities. after 2019, it can be seen that Ideology and Politics is integrated into the curriculum of all subjects in primary and secondary schools, and researchers need to be based on the background of the times, start from the existing deficiencies, sort out the progressive vein of the Ideology and Politics in different sections of the curriculum, and transform the teaching objectives into the curriculum goals of different sections. The current integration construction still suffers from fragmentation, redundancy, and incompatibility with cognitive development stages. Researchers need to strengthen the integrity and hierarchy of the integration construction and improve the research on the construction of Curriculum Ideology and Politics in primary and secondary school aspects in order to promote the balanced development of different school sections and disciplines.

5.3 Improve the assessment system and establish quality evaluation standards for teaching Ideology and Politics

Curriculum Ideology and Politics plays an important role in education for thought enlightenment and value leadership, however, the teaching outcomes reflected in the development of students' core literacy cannot be quantified and the measurement of implicit education is not yet mature, therefore, improving the assessment system of Curriculum Ideology and Politics can be carried out for the evaluation criteria of Ideology and Politics teaching quality from three perspectives of teaching, curriculum, and students. At the teaching level, scholars can take knowledge, methods and values as top-level objectives according to the construction requirements of the Curriculum Ideology and Politics cluster, stratify the teaching contents and set Ideology and Politics objectives, improve the teaching mode and implementation methods, record student performance, class participation and assignment completion, and establish outcome based teaching effect evaluation indexes; at the course level, professional knowledge content is indispensable, and tapping the Ideology and Politics elements of the course At the course level, the professional knowledge content is indispensable, and it is necessary to develop the course resources in line with the internal logic, based on the knowledge content itself, combine the mastery of the important and difficult points of the course, the students' sense of acquisition and the innovation of thinking methods, optimize the learning experience, and establish the evaluation index of the supporting course materials.

Curriculum Ideology and Politics shoulders the fundamental task of establishing moral education, which is the key to cultivating the new generation of the times and the core of realizing the strategy of strengthening the country with talents. With the high attention and policy support of the state, scholars have actively engaged in the research in this field, but the current research on the construction of Curriculum Ideology and Politics in secondary schools still suffer from insufficient cooperation, single approach, and incomplete structure to a certain extent. In the subsequent research, scholars can promote the improvement of the research content of Curriculum Ideology and Politics by combining multiple perspectives, focusing on the articulation as a whole, and improving teachers' quality, innovating teaching design, implementing a more rigorous teaching evaluation system of Curriculum Ideology and Politics, so that students can continuously improve the height of their thinking and cast core The study of secondary school Curriculum Ideology and Politics will be strengthened, so that the theory can be effectively applied to practice, and students can learn knowledge and ability, enhance their thinking and build core qualities.

Funding:

1. The Chongqing Municipal Education Commission's Higher Education Teaching Reform Project (Key Project) "Research and Practice of Integrating Program Design Courses into Ideological and Political Education" (NO: 201017S);

2. The Higher Education Teaching Reform Project of Chongqing Municipal Education Commission "Integration and Innovation: Research and Practice on the Breakthrough Path of Ideological and Political Courses in Universities under the Background of New Liberal Arts" (NO: 223141);

3.2019 Chongqing Science and Technology Bureau Technology Innovation Key Project "Research and Application of Personalized Service Platform for Digital Education Crowdfunding and Crowdfunding" (cstc2019jscx-mbdxX0061)

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